



## Alternative Energy

By Devin Raun

The wind and sun have always been here for us, so why don't we take advantage of it? In Marlborough, solar energy would be the best to use. Solar and wind energy are great alternative energies. First, why do we need to stop using fossil fuels and start using alternative energy?

Have you ever realized that there has been higher temperatures and less snow here in the Northeast over the past couple years? This is because of greenhouse gasses. Green house gasses are gasses that trap heat in the atmosphere, just like a blanket. Fossil fuels are burned in huge quantities. They also release a lot of carbon dioxide into the air, or in other terms, they burn very "dirty." Carbon dioxide is a greenhouse gas, and more than the natural limit that the Earth recycles is in the atmosphere, so it's causing lots of global warming. Ice caps in the arctic are melting quickly, and migrating routes are changing. Farming in the Mid-west is changing because of climate change and unusual weather. Mountain snow in the Alps can't be as great of a

recourse for water. Fossil fuels needs to be reduced, and we need to switch to "clean" alternative energies.

The sun is always out there and should be a reliable source for energy. The majority of places in the world have more sunny days than cloudy, and this is a perfect opportunity for "free" energy. Solar power is sun powered. "New solar powered backup provides instant electrical power in any outage or disaster." Solar power is a lot more efficient and "green" for the environment. These are basically solar powered generators that can replace regular gasoline or propane generators. "... an emergency backup system that supplies continuous electrical power..." Solar generators have the capacity of supplying enough energy to last through long periods of time. "Orientation of the house is first. You want the longest side to face south." Where the heat is attracted to seems like a small thing, but really, it can make a big difference. Even where a tree is can save money. "Passive solar takes the common elements found in most home designs... and arranges them in a smarter way to improve home performance, decrease energy consumption, and increase home comfort." Houses can be green and save green without using any extra green. There's lots of ways use the power of the sun, but it's not the only recourse we're left with for "clean" energy.

Great Britain holds the windiest place on the planet. "According to a study published on 9 September, there is enough wind energy available to meet our current energy needs 20 times over." Wind energy is very plentiful because the sun's heating effects on the atmosphere creates lots of circulation of air. "Just before 10 AM on the morning of Friday 14 September, British wind farms achieved a new record high in their power output, supplying just under 11 percent of the electricity in the National Grid, enough to heat and light more than three million British homes." Most of the U.K's wind comes from huge air masses west from the Canadian Arctic.

"The wind behaves differently 200 to 400 feet up, where the turbines actually operate, that it does near the ground." We can't take full advantage in placing windmills yet, so we might waste money on places where there isn't as much wind higher up. ""We have thousands of monitoring stations around the country measuring the wind up to about 30 feet," says William Mahoney III, a deputy director at the National Center for Atmospheric Research in Boulder, Colorado. "But very few above that." This means that we still can't strategically place windmills for maximum energy output. But in the end, it still comes out to one that is better than the other.

I think that solar energy would be the best for the citizens of Marlborough to use. Our city has a majority of sunny days, or chargers for solar power. Our weather seems to like solar energy, but our topography doesn't. Solar farms are found in flat areas, but Marlborough has lots of hills. Solar generators however would really come in handy because of all the power outages we get. That could get the whole city to stop releasing greenhouse gasses from our "dirty" generators and let no emissions out with solar powered ones. Solar panels would be perfect for our school buildings too because they all have flat roofs. Everything seems to fall into place for solar energy in Marlborough except for our topography. I believe solar energy here can make a big difference.

Who would want to live in a place without polar bears and penguins? Do we want to rely on other parts of the world for our food that we could just grow ourselves in the Mid-west? Our world is getting over polluted, and the Earth can't filter it all out. If we stop burning fossil fuels and releasing greenhouse gasses, and start using solar and wind energy, we can make a difference not only in Marlborough, but around the world.

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